CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR DYNAMIC COMPLETION FUND - INTERNALLY MANAGED

February 14, 2005

This Policy is effective immediately upon adoption and supersedes all previous internally managed dynamic completion fund investment policies

I.PURPOSE

This document sets forth the investment policy ("the Policy") for the <u>Dynamic Completion Fund</u> - Internally Managed ("the Program"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling risks and capturing returns associated with this segment of the capital markets.

II. STRATEGIC OBJECTIVE

Reducing style bias caused by the Active Domestic Equity Managers relative to the System's Custom Wilshire 2500 Index is the strategic objective of the Program. The Dynamic Completion Fund Portfolio ("the Portfolio") is a specialized, passively managed domestic equity portfolio structured to complement the Active Domestic Equity Managers' Portfolios. Outperforming the System's Custom Wilshire 2500 Index by means of the aggregate returns net of fees for the Dynamic Completion Fund and the Domestic Active Managers' Portfolios is the strategic objective of the Active Domestic Equity Program. The Dynamic Completion Fund Program shall provide a vehicle for facilitating manager transitions while minimizing transaction costs.

The Portfolio shall be managed to accomplish the following:

- 1.Enhance the System's total return and risk control capabilities;
- 2. Hedge against active (pre-retirement) liabilities;
- 3. Provide diversification to the System's overall investment program;
- 4.Reduce style bias of the aggregate Active Domestic Equity

 Managers' Portfolios;
- 5.Facilitate the transition of managers or change in manager allocations in a cost effective manner: and

Copyright © 2005 by CalPERS. Reproduction of any part of this manual is permissible if reproduction contains notice of CalPERS' copyright as follows: "Copyright © 2005 by CalPERS".

6.Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law.

III. RESPONSIBILITIES AND DELEGATIONS

- A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy and delegated the responsibility for administering the Program portion of the System to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).
- B. The System's Investment Staff's ("the Staff") duties include, but are not limited to, the following:
 - 1. Developing and recommending the Policy to the Investment Committee:
 - 2. Developing and maintaining a procedures manual subject to periodic review and updating that outlines Staff operational procedures used in implementing this Policy;
 - Implementing and adhering to the Policy;
 - 4. Reporting immediately to the Investment Committee all violations of the Policy with explanations and recommendations;
 - 4. Purchasing only securities that are outlined in the Policy; and
 - 6. Reporting internally to senior management on the implementation of this Policy. This report will be prepared monthly to include, but is not limited to, the following:
 - a. Current market value of the Portfolio:
 - b. Performance of the Portfolio versus the <u>benchmark</u> as reported by the master custodian; and
 - c. <u>Performance attribution</u> analysis which attributes return to its causes.
 - C. The General Pension Consultant ("the General Pension Consultant") is responsible for monitoring and evaluating the Fund's performance relative to the benchmark and Policy. The General Pension Consultant shall report to the Investment Committee on a quarterly basis, in accordance with its contract.

Monitoring shall include placing the Portfolio on <u>Watchlist Status</u> using the following criteria:

- If the realized annual <u>return deviation</u> is less than -225 basis points, but greater than -300 basis points for two consecutive quarters, and the <u>forecasted tracking error</u> is greater than 150 basis points, then the Portfolio shall be placed on watchlist status.
- 2. If the realized annual return deviation is less than -300 basis points for two consecutive quarters, and the forecasted tracking error is greater than 150 basis points, then the portfolio shall remain on Watchlist Status and further review may be required.

IV. PERFORMANCE OBJECTIVE

Achieving the return for the broad domestic equity market is the performance objective. To accomplish this objective, using statistical models to approximate the return of the market rather than replicate it is more cost effective.

Return deviations between the Portfolio and the designated benchmark will be random, as expected. To account for the difference in the methodology calculating the returns for the benchmark and the portfolio, the resulting return deviation may require an adjustment. The System shall set the parameters in the statistical models it employs in such a manner that forecasted tracking error shall be within ± 150 basis points. Realized returns should fall no more than 150 basis points below the benchmark during any 12-month period. However, the System shall allow wider tracking error and return deviation when they result from a deliberate decision to reduce turnover or to control a specified risk contained in the Portfolio.The benchmark shall be entitled the "CalPERS Custom DCF Benchmark" ("the Benchmark"). A nationally recognized vendor experienced in constructing benchmarks shall develop and maintain this custom benchmark. Its construction shall be a function of the style and market capitalization biases generated by the Active Domestic Equity managers in the aggregate. The Benchmark shall complement the abovementioned biases.

The Benchmark shall vary with time as changes occur in the <u>active</u> manager program. Changes to the program include alteration in the allocation to managers, the addition or deletion of managers, or changes in the active manager' benchmark as the market goes through its cycle. Consequently, the Benchmark may have risk exposures that differ significantly from the System's Custom Wilshire 2500 Index. Additionally,

the composition of the Benchmark shall reflect the liquidity constraints encountered by large funds such as the System.

V. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

Investors, managers, consultants, or other participants selected by the System shall passively manage the Portfolio. The construction of the Portfolio shall achieve the stated performance objective. An optimized sampled approach shall be used to generate an actual portfolio with risk characteristics closely resembling the benchmark. Creating a portfolio with fewer stocks than the benchmark will help avoid large transaction costs.

The <u>optimization</u> approach shall employ a <u>fundamental risk model</u> to define and decompose the Portfolio's risk exposures versus those of the benchmark.

B. Tracking

Maintaining the actual portfolio's risk characteristics in line with those of the benchmark shall minimize the return deviation. However, a Program benchmark embodies a complex set of construction procedures and may change dynamically through time.

Aside from risk exposure variations, other reasons for tracking errors include the following:

- 1. The Program benchmark assumes full investment at all times. An actual portfolio inevitably carries minimal investment in cash equivalents due to the timing of purchases and sales as well as the accrual of dividends and distributions versus actual payments.
- The System's Custodian calculates performance using a monthly internal rate of return methodology, while the methodology used for the benchmark index is time weighted.
- 3.The Program benchmark shall be reconstructed at least quarterly. Additionally, the benchmark shall be reconstituted any time a change occurs in the allocations to the active managers. There are changes in the Program benchmark due to changes in the manager(s)' benchmarks or the System's Custom Wilshire 2500 Index.
- 4. The benchmark does not reflect any transaction costs, whereas an actual portfolio incurs transaction costs. To minimize transaction

Copyright © 2005 by CalPERS. Reproduction of any part of this manual is permissible if reproduction contains notice of CalPERS' copyright as follows: "Copyright © 2005 by CalPERS".

costs in the actual portfolio at <u>reconstitution</u>, the transition of the actual portfolio to reflect changes in the benchmark will be done gradually. Some securities that are deleted from the benchmark are retained in the Portfolio because they generate little or no return deviation.

5. Return deviation may also be caused by adherence of the actual portfolio to the restrictions itemized in V. B and V. C.

Because the portfolio must incur transaction costs to purchase and sell securities, a trade-off must be made between incurring transaction costs and minimizing tracking error. Since transaction costs are always negative and reduce the value of the portfolio, while return deviation can be positive or negative, an analysis shall be employed to determine when increasing return deviation is more attractive than incurring transaction costs. However, estimated tracking error shall always be maintained within the 150 basis point policy limit.

C. Specific Risk Parameters

Specific risk parameters shall limit the return deviation of the portfolio versus the benchmark. A number of models shall ensure that the risk parameters are within a tolerance to achieve the performance objective. Since the System will add or eliminate models, the specific risk parameters for each model are detailed in the Procedures manual.

D. Restrictions

- Foreign incorporated securities (including ADR's) shall not be held in the Portfolio for investment. Such securities received in corporate actions or through a change in classification shall be liquidated as cost effectively as possible.
- 2. The benchmark of the System's Custom Wilshire 2500 Index does not contain Real Estate Investment Trusts (REITs). Consequently, the Program is prohibited from purchasing shares of REITs.
- 3.Individual security positions are limited to no more than 5% of the outstanding shares for the security. The System may maintain security positions which exceed this limit if a cost/benefit analysis of holding versus selling the position demonstrates an adverse affect on the tracking goals. However, individual securities positions shall be limited to 10% of the outstanding shares. To comply with the limit and as cost effective, securities exceeding the limit shall be liquidated.

4. The Portfolio may not purchase the securities of primary tobacco companies as identified by the Investor Responsibility Research Center Tobacco Company List.

E. Permissible Securities

- Equity securities of publicly-traded companies headquartered in the U.S.
- 2. The Portfolio may hold securities not represented in the designated benchmark. Such holdings are justified by the following reasons:
 - a. Liquidity constraints or excessive transaction costs, such as those required to sell certain securities obtained from corporate actions or from past benchmark reconstitutions.
 - b. Expectation of inclusion in the benchmark at the next reconstitution.

F. Corporate Actions

The quarterly <u>rebalancing</u> of the benchmark shall include corporate actions (e.g., <u>tender offers</u>, <u>mergers</u>, <u>Dutch-auctions</u>, and <u>spin-offs</u>). However, significant corporate actions shall be included more frequently. Staff shall adjust the Portfolio on a case-by-case basis, with issues requiring in-depth analysis referred to the Research Unit.

G. Rebalancing and Trading Activity

Investors, managers, consultants, or other participants selected by the System shall perform Portfolio rebalancings as is deemed necessary for maintaining the portfolio's risk characteristics in line with those of the benchmark.

A variety of trading techniques and liquidity sources shall be utilized to obtain best execution of the approved internal trade list.

Transaction cost analysis shall be performed and evaluated on a quarterly basis for monitoring trading efficiency as compared to that of a like universe. An outside vendor may prepare this analysis.

H. Attribution Analyses

The portfolio's risk characteristics shall be monitored monthly through the attribution reports. The reports, described below, shall determine any

necessary rebalancing of the actual portfolio due to <u>variances</u> highlighted in these reports.

1. Performance Attribution Report

A performance attribution report concerning the Program shall be generated monthly to ascribe performance to common factors, economic or industry sectors, and stock selection. Returns shall be analyzed to determine how performance is derived and if any appropriate adjustments should be made to the Portfolio.

2. Risk Attribution Summary

A risk attribution report shall be generated monthly, displaying the total, <u>systematic</u>, and <u>nonsystematic risk</u> of the Portfolio relative to the benchmark. Risk characteristics of the portfolio relative to that of the benchmark can then be analyzed to determine if any imbalances exist and if appropriate adjustments should be made to the Portfolio.

3. Over/Under Weighting Report

An over/under weight report shall be generated monthly displaying stocks with weights +/-5 basis points versus the benchmark weight. These stocks shall be evaluated for possible decrease or increase in the security's weight in the portfolio versus the benchmark weight.

VI. BENCHMARK

The benchmark shall be entitled the "CalPERS Custom DCF Benchmark" ("the Benchmark"). A nationally recognized vendor experienced in constructing benchmarks shall develop and maintain this custom benchmark. Its construction shall be a function of the style and <u>market capitalization</u> biases generated by the Active Domestic Equity managers in the aggregate. The Benchmark shall complement the above mentioned biases.

The Benchmark shall vary with time as changes occur in the active manager program. Changes to the program include alteration in the allocation to managers, the addition or deletion of managers, or changes in the active manager' benchmark as the market goes through its cycle. Consequently, the Benchmark may have risk exposures that differ significantly from the System's Custom Wilshire 2500 Index. Additionally, the composition of the Benchmark shall reflect the liquidity constraints encountered by large funds such as the System.

VII. GENERAL

Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.

VIII. DERIVATIVES AND LEVERAGE POLICY

A. Strategies

The Portfolio may utilize financial futures and options for the following purposes:

- Permitting the investment of dividends received;
- Equitizing cash and dividends receivable;
- Allowing the adjustment of the portfolio's risk characteristics consistent with the risk exposure of the index, in the most cost effective and efficient manner available: and
- Facilitating investment of cash flows related to contributions, withdrawals, or any asset allocation change.

B.Justification

Justification for the above-mentioned strategies includes the following:

- Lower transaction costs compared with purchase of underlying securities;
- High correlation to price movement of benchmark; and
- 3.Provide the ability to alter risk characteristics versus the benchmark without disrupting the underlying portfolio or unnecessarily increasing turnover.

C.Restrictions

Restrictions on the above-mentioned strategies are as follows:

- Uncovered call writing is prohibited;
- 2.Leverage is prohibited. The use of futures contracts as specified in this Policy will not constitute leverage;

- 3. Non-exchange traded derivatives are prohibited;
- 4. <u>Speculation</u> is prohibited; and
- Traders are limited in their authorization of trading stock futures to 1000 long contracts and 1000 short contracts, without prior written authorization from management.

D. Permissible Derivatives

Only exchange-traded derivatives will be utilized in the Program Portfolio, which may include futures and options.

E. Futures Commission Merchants (FCM)

Futures Commission Merchants are selected with the following broad range of criteria:

- Low cost clearing and executing charges;
- 2. Securely capitalized firm;
- Clear account statements and efficient reconciliation;
- Responsive personnel;
- Discrete and efficient operation;
- Personal interview; and
- Reference checks.

IX. GLOSSARY OF TERMS

Definitions for key words used in this policy are located in the Equity Glossary of Terms which is included in the System's Master Glossary of Terms.

Approved by the Policy Subcommittee: May 29, 1998
Adopted by the Investment Committee: June 15, 1998
Revised by the Policy Subcommittee: May 13, 1999
Adopted by the Investment Committee: August 16, 1999
Revised by the Policy Subcommittee: December 10, 2004
Adopted by the Investment Committee: February 14, 2005

Copyright © 2005 by CalPERS. Reproduction of any part of this manual is permissible if reproduction contains notice of CalPERS' copyright as follows: "Copyright © 2005 by CalPERS".

Asset Class Glossary: Equities Policy: Dynamic Completion Fund - Internally Managed March 17, 2008

Active Management

An investing strategy that seeks to outperform the broad market benchmark by creating a portfolio that is different from the broad market benchmark. In equities, this is usually accomplished by overweighting and underweighting specific sectors or securities relative to the benchmark.

Benchmark

A set of securities with associated weights that provides a passive representation of a manager's investment process. The benchmark return is usually used to measure a manager's performance results.

Common Factor

An element of return that influences many securities and, hence, is a "common factor" in the returns on those securities. By virtue of their common influence on many stocks, common factors contribute to market return as well as residual returns of the stocks that they influence most. Some common factors for domestic equity are capitalization, beta, price/earnings, price/book, interest sensitivity, and yield.

Corporate Actions

An action taken by a company that causes a material change in structure including, but not limited to, name, price, shares, capitalization, or other such events. Typical corporate actions include tender offers, mergers, Dutch auctions, and spin-offs.

Derivative

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

Dutch-Auction

A system in which the price of an item is gradually lowered until it meets a responsive bid and is sold.

Dynamic Completion Fund

A portfolio custom designed to control the misfit present in a plan sponsor's investment program.

Forecasted Tracking Error

The expected standard deviation of a return, defined as the average of the model estimates of at least two providers.

Fundamental Risk Model

A model used to predict the risks of individual stocks using fundamental and technical

information. A covariance matrix is constructed from the factor's standard deviations and the correlations between one another. This covariance matrix can be used to predict the risk characteristics of a portfolio.

Hedge (Hedging)

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

Market Capitalization

A stock's current market price multiplied by the current common shares outstanding.

Merger

The combination of two or more companies. Strictly speaking, only combinations in which one of the companies survives as a legal entity are called mergers.

Nonsystematic Risk

That part of a total return that cannot be explained by a single- or multi-factor model of returns. Such components of return can be diversified away in a sufficiently large and well-diversified portfolio.

Optimization

The best solution among all solutions available for consideration. Constraints on the investment problem limit the region of solutions that are considered and the objective function for the problem by capturing the investor's goals correctly, providing a criterion for comparing solutions to find the better ones. The optimal solution is the solution among those admissible for consideration that has the highest value of the objective function.

Performance Attribution

The process of attributing portfolio returns to causes. It decomposes past performance into separate components or factors contained within a multi-factor model.

Rebalancing

Modeling a portfolio through an optimizer to obtain roughly equal buy and sell trade lists.

Reconstitution

The screening which occurs every June 30 for potential additions or deletions to the index. The screening examines the market capitalization of Real Estate Investment Trust (REIT) stocks, their content, concentration of ownership and position in the market sector. Stocks which no longer meet the criteria of the REIT index according to this policy will be eliminated from the index while new stocks which have qualified in the

past year are included. A tolerance level will be applied to stocks which have dropped from the index since the past year in order to minimize transactional costs.

Return Deviation

The difference between the total return of a portfolio and the total return of the benchmark index.

Risk Attribution

The process of decomposing total risk and attributing it among the factors contained within a multi-factor model.

Sampling

A method of indexation whereby a representative sample of the index constituents, rather than every share in the index, are purchased.

Speculation

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.

Spin Offs

Companies which are derived from other companies and begin to trade publicly on their own.

Style Bias

The difference between an aggregate or individual manager benchmark and the target.

Systematic Risk

That portion of total return that can be explained by a single- or multi-factor model of returns. Such components of return are directly proportional to the market's return and cannot be eliminated by diversification.

Tender Offer

An offer to buy securities for cash, other securities, or both.

Tracking Error

The annualized standard deviation of the difference between the total return of the portfolio and the total return of the benchmark. The term tracking error is frequently used to describe return deviation, the total return of a portfolio, minus the total return of a benchmark index.

Variance

A statistical term for the variability of a random variable about its mean. The variance is defined as the sum of the squares of the deviation from the mean.

Watchlist Status

Indicates a level of concern, the degree of which shall be unique to each situation with the parameters specified in the relevant policy.